UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/694,004	10/23/2000	YASUHIRO MIZUKOSHI	PNDF-00110	8994

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EXAMINER
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ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 06/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*21 April 2004*</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *3-9* is/are allowed.

6)☒ Claim(s) *1 and 2* is/are rejected.

7)☒ Claim(s) *10-15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

5

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Chang et al. (U.S. Patent 5,367,523) in view of Toporek et al. (U.S. Patent 6,654,344

B1).

Regarding claim 1, Chang discloses "a network system, comprising:

10   a communication line having a predetermined bandwidth (figure 2 where the line

between nodes is the communication line; col. 6, lines 35-40 and 61-65 and where it is

also known in the art that all communication lines have a predetermined bandwidth by

the very nature of the physical properties of the conducting medium and of the network);

a terminal unit that is connected to said communication line and receives data

15   through the communication line (figure 2, element 23);

a first unit that couples said terminal unit through said communication line and

routes data to be communicated between said terminal unit and said first unit (figure 2,

element 22 where the packet network consists of the network nodes as in figure 1; and

the repeating of data to be communicated between said terminal unit and said first unit

20   is simply the process of communicating data along the line); and

a second unit that sends data to said terminal unit through said first unit

according to the bandwidth of said communication line...(figure 2, element 21; col. 8,

lines 29-31)."

However, Chang lacks what Toporek discloses, that is the bandwidth "...is

5   estimated based on a data delay time of said communication line (col. 17, lines 6-23 it is

noted that although Toporek deals with a part of the network that is satellite based, the

overall transmission trip from one end to another (the data delay time) is equivalent to

that of Chang and thus related art)."

It would have been obvious to one with ordinary skill in the art at the time of

10   invention to include the bandwidth calculation based on the data delay time with the rest

of the system for the purpose of determining a bandwidth limit for the system. The

motivation being that calculating a limit allows the system to refrain from transmitting

and storing more data than there is physical space for (Toporek, col. 17, lines 41-45).

15   Regarding claim 2, Chang discloses "a network system, comprising:

a communication line having a predetermined bandwidth (figure 2 where the line

between nodes is the communication line; col. 6, lines 35-40 and 61-65 and where it is

also known in the art that all communication line have a predetermined bandwidth by

the very nature of the physical properties of the conducting medium and of the network);

20   a terminal unit that is connected to said communication line and receives data

through the communication line (figure 2, element 23);

a first unit that couples said terminal unit through said communication line and

routes data to be communicated between said terminal unit and said first unit (figure 2,

element 22 where the packet network consists of the network nodes as in figure 1; and

the repeating of data to be communicated between said terminal unit and said first unit

5   is simply the process of communicating data along the line); and

a second unit comprises,... a data sending means that sends data to said

terminal unit according to the bandwidth of said communication line stored in said

communication line bandwidth storing means corresponding to the data delay time

calculated by said communication line delay calculating means (figure 2 where it is clear

10   that element 21 sends data, according to the received calculated bandwidth, to the

terminal node; col. 7, lines 15-19)."

However, Chang lacks what Toporek discloses, that is "...a communication line

delay calculating means that calculates the data delay time of said communication line

(col. 17, lines 6-23 it is noted that although Toporek deals with a part of the network that

15   is satellite based, the overall transmission trip from one end to another (the data delay

time) is equivalent to that of Chang and thus related art)" and "...a first measuring

means that is connected to said first unit and measures a first round trip time as a data

delay time between said terminal unit and said second unit, a second measuring means

that measures a second round trip time as a data delay time between said first unit and

20   said second unit (col. 17, lines 6-23 where although it is only expressed as a single

round trip time calculation, choosing to calculate two round trip times to calculate one

combined round trip time is a matter of design choice because ultimately the answer will

be the same if you have one round trip calculating means or two round trip calculating

means or three round trip calculating means and so on)...a communication line

bandwidth storing means that stores a bandwidth of said communication line

corresponding to the data delay time of said communication line (col. 17, lines 6-25

5   whereby using the calculated bandwidth from the round trip time in step 398 implies that

the bandwidth calculated in the previous step must have been stored for later use, such

as for use in step 398)..."

It would have been obvious to one with ordinary skill in the art at the time of

invention to include the bandwidth calculation based on the data delay time with the rest

10   of the system for the purpose of determining a bandwidth limit for the system. The

motivation being that calculating a limit allows the system to refrain from transmitting

and storing more data than there is physical space for (Toporek, col. 17, lines 41-45).

Allowable Subject Matter

15   Claims 10-12 and 13-15 are objected to as being dependent upon a rejected

base claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject

20   matter: Claims 3-9 are allowable because the prior art of record fails to teach, in

combination with other claim limitations, "an estimating means that estimates the

number of routers up to said access server from a counter value of the first echo

response received by said first echo response receiving means, a second echo request

sending means that sends a second echo request with a count value that is set to be

the number of routers estimated by said estimating means to said terminal unit..."

5   ***Response to Arguments***

Applicant's arguments with respect to claims 1 and 2 have been considered but

are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the

10   examiner should be directed to Joshua Kading whose telephone number is (703) 305-

0342. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

15   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

20   you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Joshua Kading

Examiner
Art Unit 2661

June 4, 2004

KENNETH VANDERPUYE
PRIMARY EXAMINER